U. S. NAVY MEDICINE

December 1980

Interns at Sea

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COVER: USS *Lexington* refueling crew prepares a TA-4 Skyhawk for takeoff as Navy medical interns look on. Story on page 2. Photo by the Editor.

Opposite: A U.S. Navy patrol plane catches a Soviet "Victor" class nuclear submarine on the surface as it passes through the Strait of Malacca from the Indian Ocean. See Soviet Naval Medicine on page 7.

Operational Medicine Orientation 1980

180 Medical Corps Interns Visit Pensacola

The Naval Aerospace Medical Institute recently hosted 180 Medical Corps interns for a four-day visit to NAS Pensacola, FL, from 21-25 Oct 1980. Physicians stationed at intern training hospitals in Oakland, Camp Pendleton, and San Diego joined colleagues from the east coast—Bethesda, Portsmouth, Charleston, Jacksonville, and Pensacola—for a firsthand look at Navy operational medicine.

The concept of operational medicine was strange or unknown to most of the participants, some of whom had been in the Navy only four months. Many had never been aboard a naval vessel or aircraft before and few had been given the opportunity to venture far from the hospital environment.

One of the purposes of the orientation, therefore, was to acquaint the physicians with two unusual and exciting aspects of operational medicine—flight surgery and undersea medicine. "Before we had these trips, one could theoretically spend eight or ten years in the Navy as a med student, intern, and then as a specialist in a hospital without ever seeing the rest of the Navy," said CDR Fred L. Jackson, MC, USN, Head of the Aerospace Medicine Operations Branch at BUMED and one of the orientation's organizers.

The program began three years ago and has had one very ambitious goal—to recruit physicians into flight surgeon and undersea medicine careers. So far, according to Dr. Jackson, there have been some successes. The number of flight surgeons has increased by 15 percent in each of the last two years in overall numbers of doctors recruited, yet even with this increase, a chronic shortage remains. The Medical Corps is still 35 percent short of requirements to fill existing flight surgeon billets and the annual orientations are seen as one means of remedying the situation.

Photos by the Editor

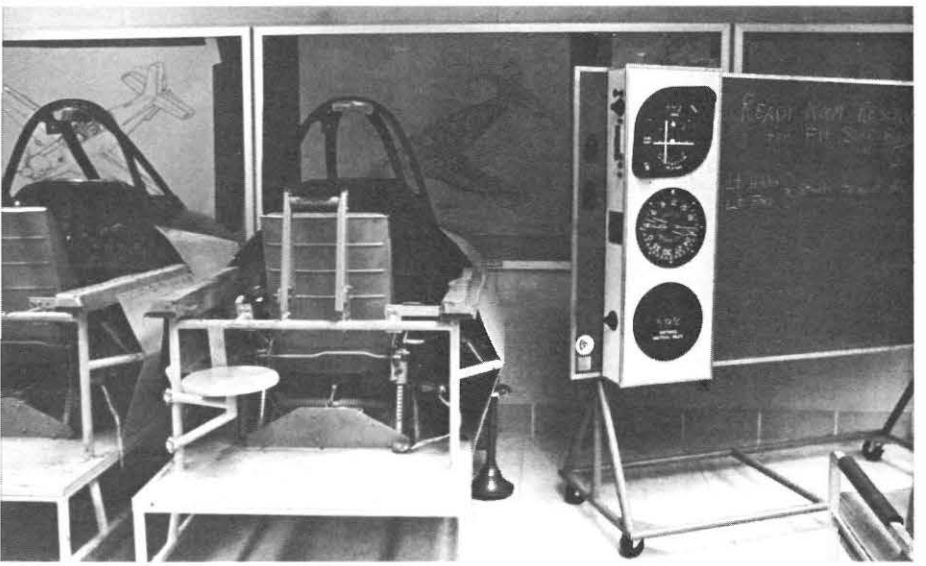
A trip to the new Navy Diving and Salvage Training Center in Panama City, FL, introduced the interns to one aspect of the undersea medicine program.

Undersea Medicine

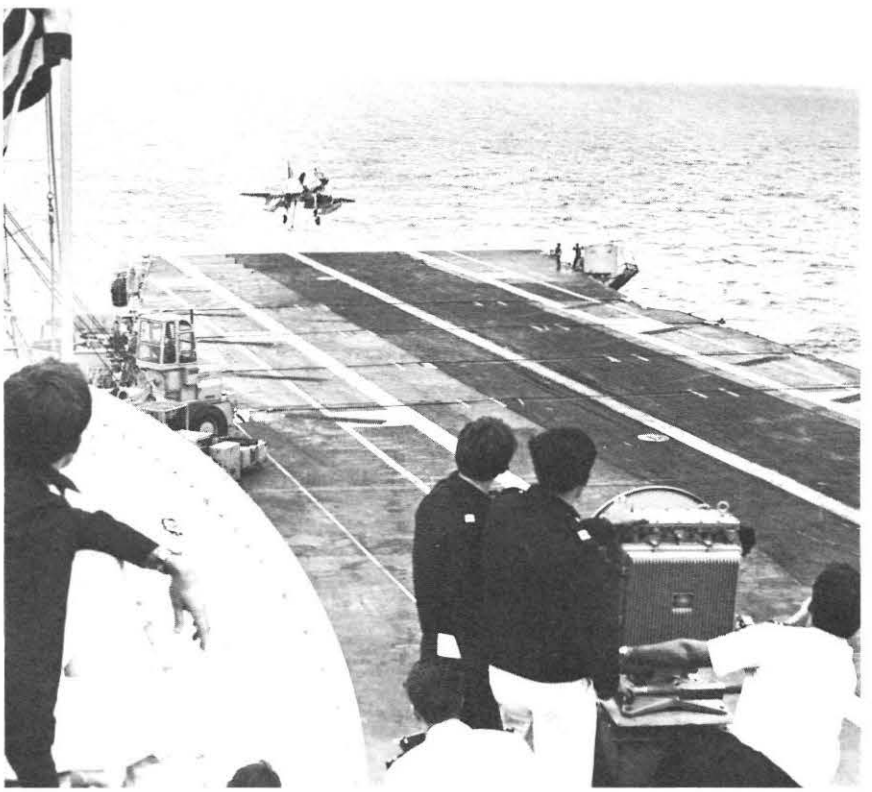
Interns and escorts were treated to a full schedule of activities and briefings beginning with a trip down the Gulf coast to Panama City, the new headquarters of the Navy Diving and Salvage Training Center. Although this activity was not yet fully operational, about 102 officers and enlisted personnel were being trained as Navy divers and in related undersea operations such as ship salvage and undersea rescue operations.*

There are a number of courses at the Center dealing specifically with

*For a more complete picture of Navy diving, see "Where Navy Divers Learn Their Trade," *U.S. Navy Medicine*, October 1979.



Training aids and simulators are used extensively at the Whiting ground school.



Tailhook down, a TA-4 Skyhawk roars in for a landing.

undersea medicine. These include: medical deepsea diving for diving hospital corpsmen, recognition and treatment of diving casualties, a one-week course for medical officers of the Navy and the other armed services, and an eight-week diving course for medical officers which satisfies part of the requirement for the undersea medicine program.

The $160 million facility is undoubtedly the best of its type in the world. It includes shallow water indoctrination tanks, a training pool for SCUBA, a free ascent tower for training in emergency escape procedures, and three hyperbaric chambers which can be used for treating diving casualties or simulating deep dives. There are also diving craft equipped for mixed gas, open water diving in the Gulf.

Flight Training

The following day, flight training was given top billing with a trip to NAS Whiting Field. To practice naval flight medicine, a physician must not only experience the sensation of flight but also successfully complete basic flight training.

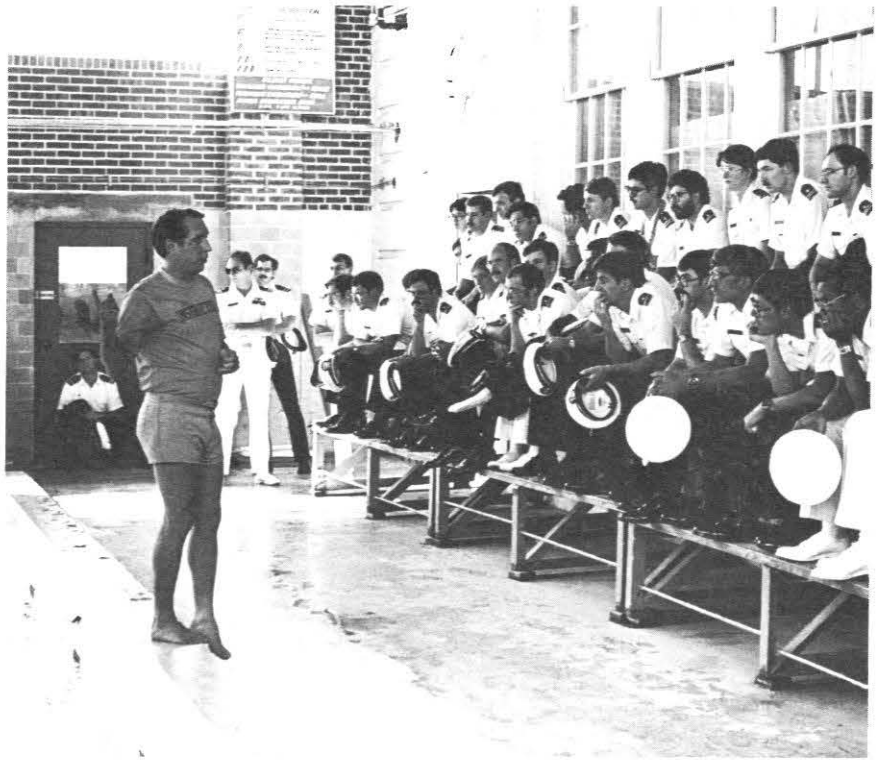
Basic flight training for flight surgeon candidates as well as all prospective naval aviators begins at Whiting. After successfully completing the aviation preflight indoctrination course at the Naval Aviation Schools Command at Pensacola, students report to Whiting, the home of Training Air Wing 5, the largest of the air training wings in the Naval Air Training Command. They go through a rigorous ground school and learn the essentials of flight—engineering, flight

rules and regulations, aerodynamics, instrument navigation, meteorology, and communications. Students divide their time between these academic courses, individual study, and experience with training devices and flight simulators. For every hour of flight time, there must be two hours of ground school.

Even as they learn the theory, all students, flight surgeon candidates included, must master their aircraft —a T-34C turboprop trainer. This means hours of practicing takeoffs and landings, emergency procedures, radio communications, course rules, landing patterns, and stall and spin recoveries. Most flight surgeon candidates stop short of the solo, but what they now know about flight will be an invaluable asset in their practice of flight medicine.

The tour of Whiting completed, the interns returned to Pensacola for an important look at one very important aspect of the Navy's preflight indoctrination course—water survival training. They watched poolside as two water survival simulators were demonstrated.*

Following this briefing, they heard CDR Ralph Gaither, Jr., Director of Survival Training at Pensacola talk about his own survival as a prisoner of war of the North Vietnamese.**

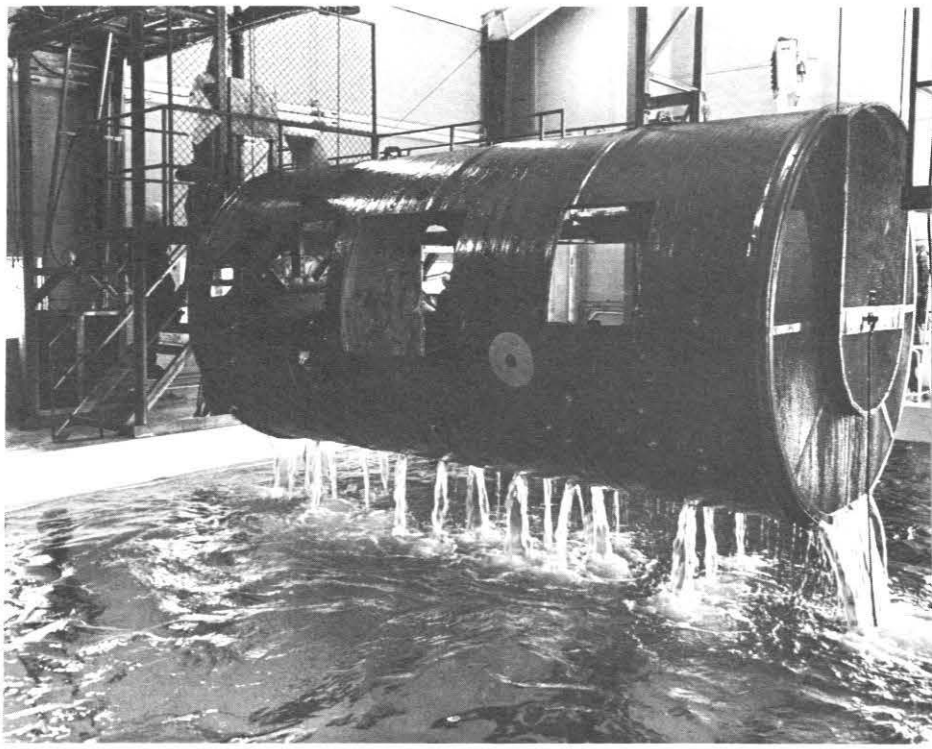


Interns are briefed poolside on a very essential phase of naval flight instruction—survival.

A Day at Sea

The NAMI hosts saved the best for last—a day cruise aboard USS *Lexington* for a closeup look at naval flight operations.

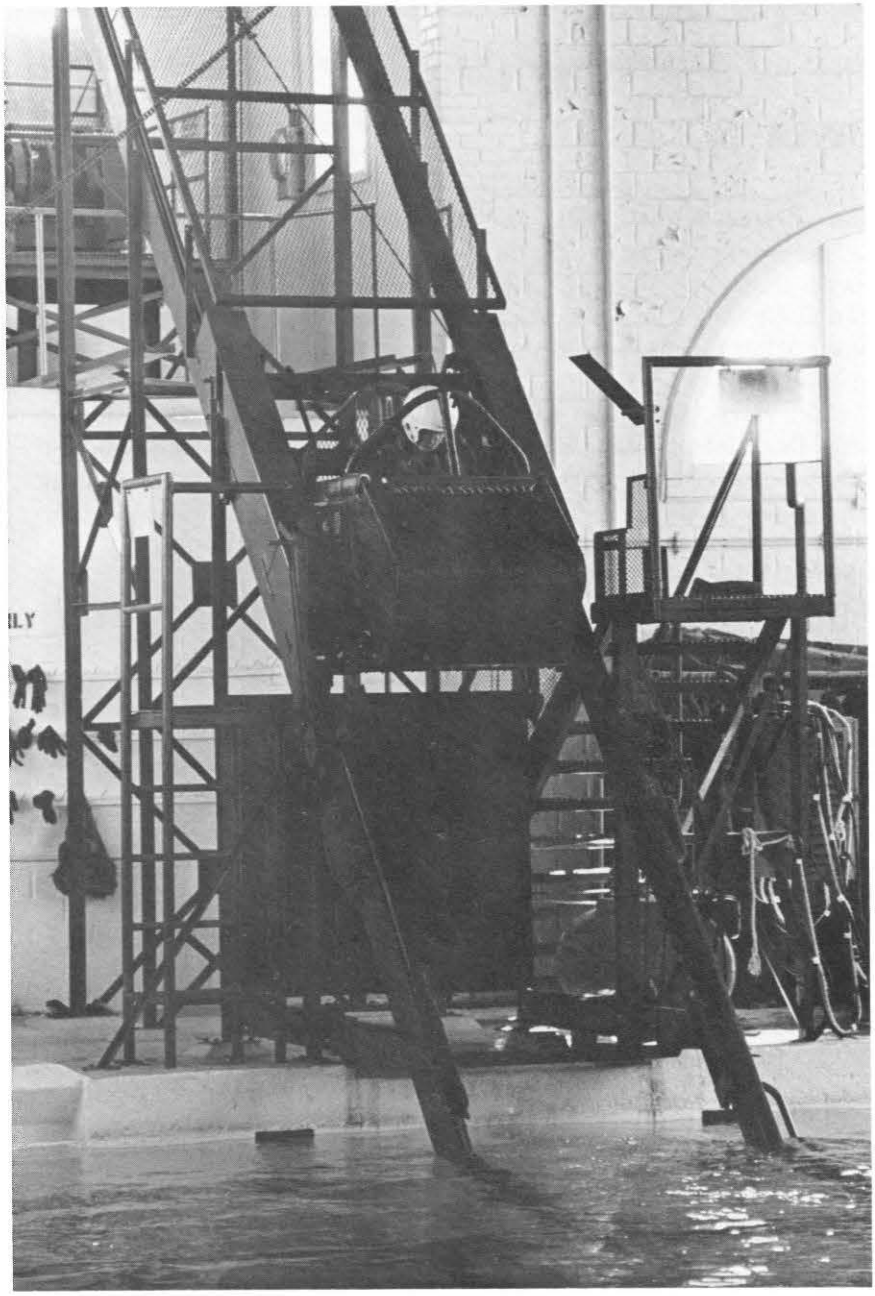
The day began cool and windy as 180 interns boarded the Lex. The night before, the vessel's executive



The 9D5 universal helicopter underwater egress trainer, known as the helo dunker, simulates a multiplace fixed-wing or helicopter ditching.

*For a detailed review of water survival simulators in use at the Naval Aviation Schools Command, see "Just Like the Real Thing . . . Almost," *Campus,* June 1980.

**See "A Survivor Teaches Survival," *U.S. Navy Medicine,* August 1980, p.28.



Water survival training for naval aviators and flight surgeons includes a dip in the Dilbert Dunker, 9U44 single-place underwater egress trainer. After hitting the water, the device flips upside down; the student must then free himself and swim away safely.

officer had briefed them on ship etiquette and now most were eager to get underway.

The hanger deck of the Navy's oldest operational carrier was crowded with World War II veterans of the ship's Pacific combat days and many other guests as tugs eased her from the dock. *Lexington* was underway by 0900. An hour later, two vintage World War II aircraft flew by at low altitude—a Corsair and a P-51 Mustang. Shortly thereafter, flight ops began in earnest.

TA-4 Skyhawks swept in for touch and go's and cable-arrested landings. After refueling and preflight checks, jet engines whined and the starboard catapult slammed the mean-looking aircraft back into the sky. For those who had never witnessed carrier landings and take-offs, there were ample thrills and a newfound understanding of the danger and complexity of carrier operations.

After eight hours at sea, and a very full and informative four days learning the ways of flight and undersea medicine, the interns left for home. In a short time, they had been introduced to two important and very exciting phases of naval operational medicine. Most were impressed. Was the orientation successful in recruiting flight surgeons and undersea medical officers? It's still too early to tell how many applications will be forthcoming as a result of the trip, but one thing is certain. The chance to see the operational Navy firsthand may not have come about any other way. —JKH □

Flight Surgeon is One of Operational Orientation's Successes

LT Lisa Lichter, MC, USNR, is one of the Navy's new flight surgeons and soon to be an undersea medical officer. The Kenosha, WI, native attended medical school at the University of Wisconsin and joined the Navy in her sophomore year. After graduation, she interned at NRMC San Diego, CA.

It was in 1978, on the first Navy Medical Officers' Operational Orientation visit to the Naval Aerospace Medical Institute, that Dr. Lichter first became acquainted with the flight surgeon program. The trip's itinerary also included a visit to the Navy School of Diving and Salvage in Washington, DC. What she saw convinced her that there would have to be a place in her Navy career for both flight surgery and diving medicine. Having earned her wings, and now on the NAMI staff, Dr. Lichter soon will head for the Naval Undersea Medical Institute at Groton, CT, for the first phase of her training in undersea medicine.

Dr. Lichter

U.S. Navy Medicine talked with Dr. Lichter, one of this year's Operational Medicine Orientation escorts.

USNM: What are your duties here at NAMI?

Dr. Lichter: I'm head of the Physical Evaluation Branch. We perform aviation physicals on aircrew candidates, aviation officer candidates, and fleet personnel who may be coming into the aviation program either as student aviators or flight officers. We also examine student flight surgeons and perform annual physicals for flight status personnel at Sherman Field here at Pensacola and for 12 station pilots and 30 aircrew members assigned to the transport service at the base. That's about 120 to 160 physicals a week. We also handle sick call for our own students at NAMI.

Did you find the flight surgeon training program tougher than you anticipated?

No. I certainly had no problem with the swimming requirement. However, I found the land survival a bit more demanding, especially in winter when I took the training. You find yourself walking through water and are exposed to hunger and cold, but you learn some valuable lessons about how to care for yourself.

What about the flight training?

Flying was the real challenge. I think many physicians feel they can do anything right the first time. It's a humbling experience to climb into that cockpit and find out you can't just take off and fly. There's so much to learn. Every day you fly is like taking a big test. You have to prepare for it and that instructor expects you to know what you're doing. It can be very frustrating until you get the hang of it. I must have taken eight or ten flights before I really began enjoying myself.

Were you ever treated any differently than your fellow students?

Not really. Ever since I've been in the Navy, I have had only one bad experience. An officer I worked with let me know that he had little use for female physicians. Since then, I have never gotten special consideration or been treated any differently than anyone else.

Do you think these intern orientation visits are valuable?

I don't know how many people know about flight surgery or the undersea medical officer program. In a hospital environment, all you see are other interns, staff physicians, and residents. I never saw a flight surgeon, much less an undersea medical officer. I never knew the latter existed. When you come here and are not already committed to a residency, and come with an open mind, what you see might very well excite you. And if you already have been toying with the idea of becoming a flight surgeon or a diving medical officer, the trip could very well cement things. It did for me. —JKH

Soviet Naval Medicine

CAPT R. Paul Caudill, Jr., MC, USN

Submarine Medical Officers and Surgical Training

Part four in a continuing series.

In 1969, Lieutenant Colonel of the Medical Services, L.G. Galaktionov wrote that, historically, surgery on Soviet submarines had been influenced by limited equipment, absence of experienced assistants, lack of space, and stress. Because of the multiple concerns about surgery in submarines, special training efforts were developed. (*1*)

A 1964 article described a plan in which the submarine's surgical team received special training ashore. Experience had demonstrated that submarine personnel lacked skills for difficult surgical cases. Therefore, personnel serving in the submarine medical department were sent ashore to hospitals as an extension of their shipboard training and to improve their teamwork and skills.

First attempts to provide training for submarine personnel involved practice aboard the submarine with drills simulating surgery in the vessel's operating room. Further practice in shore dispensaries followed. However, experience taught that patients were needed for the training to have real value.

In the 1964 plan there were three weeks of training involving physicians and corpsmen. In the first week, ship's personnel received an introduction to the hospital where they served, learned records systems, and were given patients to treat. The ship's physician worked under a duty hospital physician and at the end of the first week he performed a 24-hour tour of duty in the hospital. In the second week there was an introduction and oral examinations concerning appendectomies and incarcerated herniae, wounds, and burns. The physicians and corpsmen then worked in the outpatient department on wounds, burns, minor trauma, minor surgery, and treatment of abscesses. In the third week there was organized, progressing training of corpsmen and physicians with procedures ranging from minor outpatient surgery to appendectomies. With the three weeks of training completed successfully, the ship's physician would receive written certification of completion. (*2*)

By 1967, articles briefly described the debate about whether surgical training was best accomplished by teams from submarines who came ashore to operate, or whether the teams should actually perform cases aboard their vessels and then transfer recuperating patients ashore. In either case, the articles acknowledged the inadequacy of training without actual patient experience. (*3*)

One base designed a small operating room to resemble that of a submarine. Drills were held and improvements devised. On that base, during the period August 1962 to November 1966, every submarine doctor of every formation stationed at that base performed 10 to 15 independent operations and assisted on 10 to 15 more in the base operating room. The procedures most commonly performed were appendectomies, herniorrhaphies, and excision of benign tumors.

On the same base, surgical teams were assigned each month to the base hospital or surgical department. There, under the supervision of experienced surgeons, the submarine physician improved skills in diagnosis, treatment, and surgical

Dr. Caudill is Commanding Officer of the Naval Aerospace Medical Institute, Pensacola, FL 32508.

technique, accompanied by his corpsmen. (*4*) This kind of supervised training was said to represent "one more method of enhancing the combat readiness of the medical service." (*5*)

Colonel of the Medical Services, Yu P. Smirnov wrote several articles concerning training of submarine personnel in surgical skills. In April 1967, he spoke of the necessity of submarine medical personnel being prepared for surgery in emergency situations. In the area where the author served, surgical personnel were sent ashore to shore facilities for training. There were several factors influencing the training plan:

- length of school training already completed
- time of service aboard submarines
- primary specialization
- previous assignments to surgical departments
- level of theoretical training
- level of practical experience

Plans were individualized for each physician and a tailored list of learning requirements prepared for each individual. The process included the following components:

- familiarization with the work of emergency and surgical departments
- familiarization with the organization of emergency procedures in the hospital
- indoctrination in surgical tasks, such as operating room preparation, scrubbing, surgical supply, etc.
- general surgical study for technique of support duties
- patient care under a senior preceptor
- conferences in surgical, medical, and emergency problems
- watches at night, in emergency rooms, and as surgical assistant
- gradually increasing surgical duties

The course of study and work was closely monitored. Each physician had to keep a summary performance journal containing a list of activities and how he was rated on each. These performance ratings were sent to the line submarine commander. Criticism was administered in detail, covering both practical skills, theoretical knowledge, and attitude. If the physician did not measure up, additional training was provided or other action taken. (*6*)

In April 1967, Smirnov felt that after a physician was assigned to a submarine, he should be sent to a hospital while in port to work in surgery. He recommended that action to submarine commanders. Moreover, he stated that all medical support personnel should be systematically included in hospital work. He advocated pre-cruise, in-hospital refreshers for all medical surgical personnel, for five to seven days minimum. (*7*)

In a subsequent article in August 1967, Smirnov argued that surgeons and their assistants needed at least 15 days of work together in surgery to train properly. He commented that he had earlier tried sending teams to the hospital full time for predeployment training. However, this had caused problems with unit duties in predeployment workups. Subsequently, he found that half-day surgical work and half-day aboard ship worked well. (*8*)

In his 1967 article, Smirnov indicated that the capability for type and crossmatch had not been developed for all submarine units with physicians aboard. (*9*)

Smirnov stated that, even after graduation from the academy, practical procedures were not adequate to prepare for independent work. Therefore, physicians were sent to naval courses during the first year of service at sea, but if that could not be accomplished, he recommended that two months of surgical training should be accomplished in a surgical department assignment. (*10*)

Smirnov wrote that planning and standardization of training of surgical personnel were essential in predeployment preparation. (*11*)

In 1969, Lieutenant Colonel Galaktionov wrote that submarine physicians usually acquire a primary specialization in surgery. The course was one described as being for advanced training officers of fleet medical services. In these courses, the physician was said to have had the chance of doing not less than 70 to 80 operations, including 40 to 50 "cavity" operations, learning techniques for independent work.

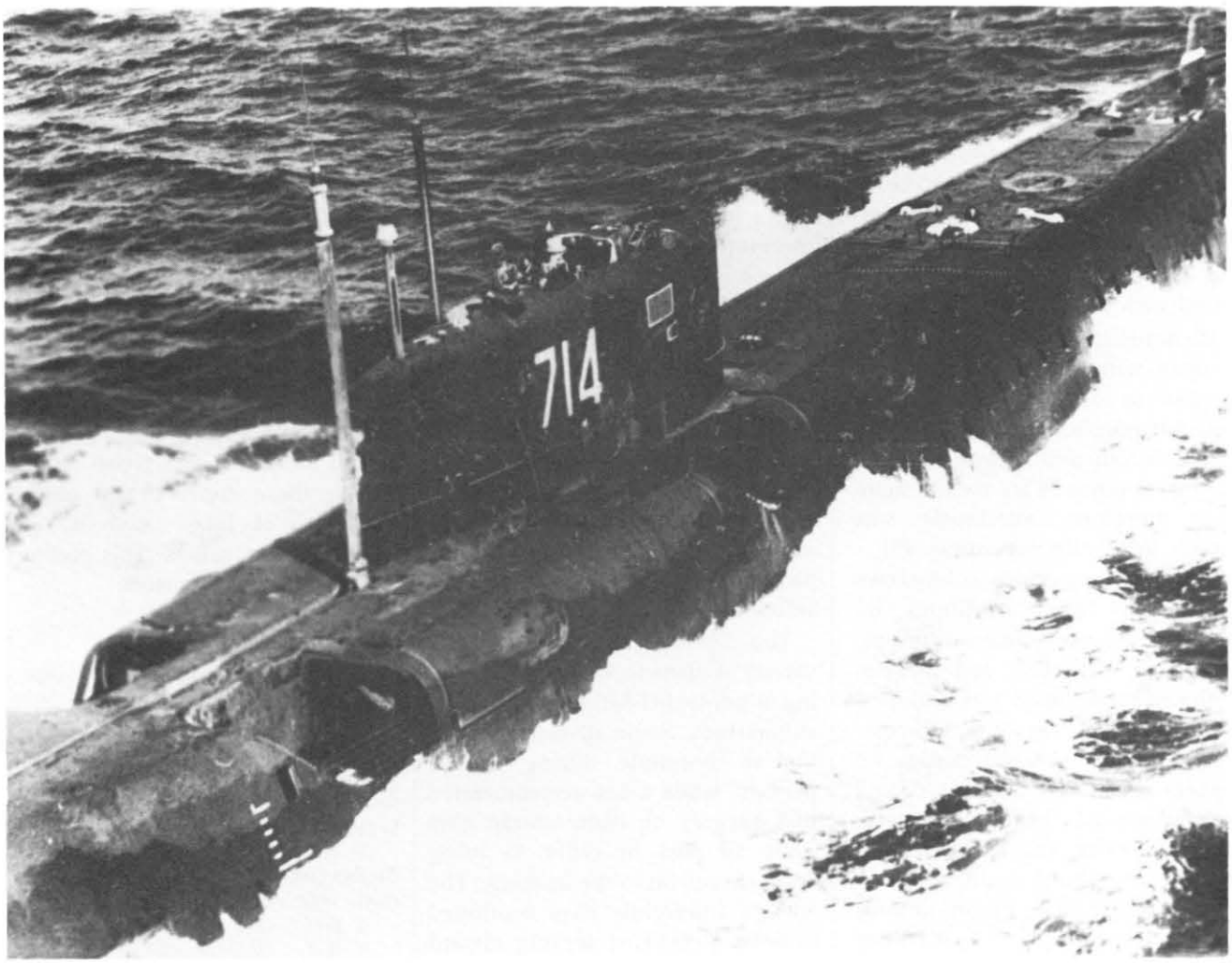
Galaktionov further wrote that "every year, for a month, submarine physicians have to work with chiefs of hospital surgical divisions."

The majority of operating rooms at medical aid stations on shore, and in floating bases, were used for training submarine surgical teams. In some units, the physician and medical orderly were in the hospital the first half of the day. During the other half, they carried out their duties on the submarine. Communication and work shared by ship's physicians during work in shore bases broadened ship to shore medical communication and understanding. This benefited future training. (*12*)

VMEA Contribution to Submariner Surgical Training

Assistance was given to submarine medical departments by the Chair of Naval Surgery of S.M. Kirov Military Medical Academy. Linen packs were suggested for specific use aboard submarines. (*13*)

The Department of Naval and Hospital Surgery of the Military



A Soviet "E-II" class nuclear submarine

Medical Academy Imeni S.M. Kirov and the medical service of one submarine organized a special training course for submarine personnel entitled, "Setting Up an Operating Room in a Submarine." The following content was recorded in the course description:

- a detailed plan of study and training was set down
- the plan was integrated in the ship's training schedule and approved by the commanding officer
- comprehensive job descriptions were written
- an operating team was trained using nonmedics
- lectures were given in a special mockup ashore
- duty work was assigned to insure understanding
- followup drills were recommended on a three-month basis (*14*)

Preparation of Submarine Wardroom for Use as Operating Room

In his March 1969 article, Galaktionov described a method of preparing an operating room in a submarine. The room described was the submarine's wardroom:

- personal gear was to be removed from the wardroom
- the room washed down with soap
- deck, overheads, bulkheads, and equipment wiped off with hydrogen peroxide
- followup wipe with ethyl alcohol
- thorough ventilation of compartment assured
- ultraviolet irradiation of the room for 20 to 30 minutes with a portable mercury quartz lamp
- special fabric tent, made from sheeting, stretched from overhead to prevent condensation water from dropping into the operating field

Scrubbing procedures were discussed as follows: On submarines, "because of abundant sweating, it is practically impossible to operate with rubber gloves on." Hands were periodically wiped with alcohol and a small amount of tincture of iodine. Wash basins for hand washing were best treated with hot water and soap and then thoroughly rinsed with alcohol-iodine mixture.

He noted that surgery was usually done with the submarine submerged to decrease rolling. The closed atmosphere prevented use of ether. Nitrous and oxygen were not used in absence of an anesthesiologist; therefore, anesthesia was usually local with novocaine. (*15*)

In 1969, long-cruise submarines carried only blood substitutes, including glucose-saline solutions, polyglycin, dry sera, and plasma. When needed, blood was collected from the crew. The author recommended that universal donors be chosen ahead and examined and that submarines be provided with transfusion kits. Those kits "should contain everything needed for determination of blood group, and for the transfusion itself." Advance training of personnel for that procedure was deemed imperative. (*16*)

One author noted that decisions regarding the administration of anesthesia at sea were based on skills and training levels of personnel. He felt that training time in anesthesia should be increased and that there be time especially designated for the acquisition of practical ability to administer anesthetics. The importance of postoperative care was emphasized, and training recommended in that discipline. (*17*)

In a number of articles, there were comments concerning the debate over active surgical intervention versus conservative care. Apparently, some surgeons had been performing extensive amounts of surgery with questionable indications. "Ultimately, the extraordinary activity of some submarine physicians cannot be justified who subject patients to operations without sufficient basis for it." (*18*)

Accidents occur on board Soviet submarines at a frequency rate adequate to stimulate comment in the literature. Major S.A. Borizov discussed working conditions in a general way and mentioned hazards, protective devices, and treatments. It was his opinion that the types and frequencies of accidents should be monitored to determine the presence of unique trends suggesting preventable accidents. Proper training would enable submarine naval physicians to participate in such epidemiological and safety efforts. (*19*)

The Soviets have instituted a variety of plans to support the training of personnel for surgery aboard submarines. Some advocated training in hospitals during in-port periods, while a few recommended that surgery be done aboard ship while in port in order to bring optimal realism to the training. The Soviets apparently have continued to have physicians serving aboard their submarines and have placed great importance on their ability to provide care without interrupting the mission.

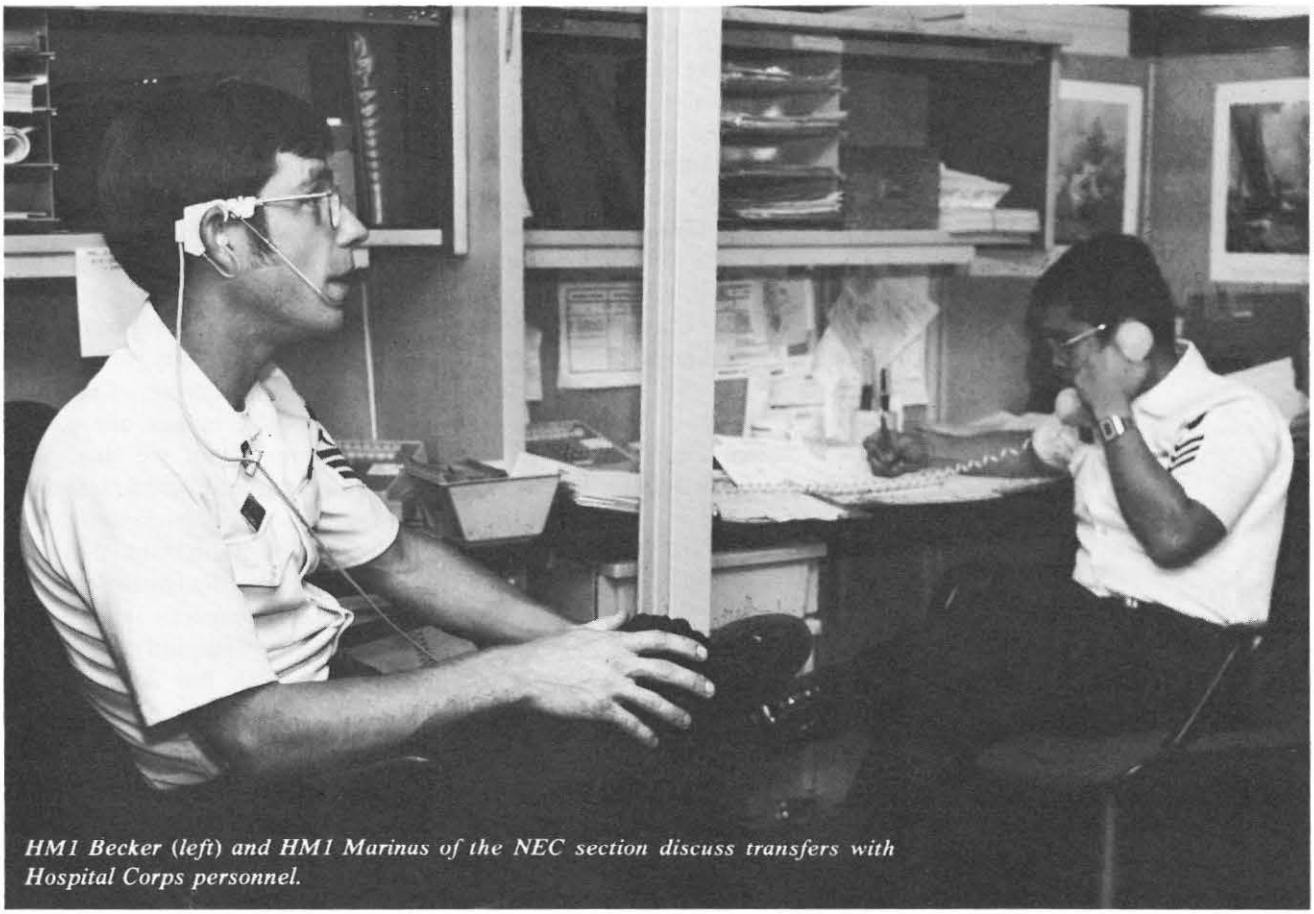
The involvement of VMEA in surgical equipment planning and in special training programs for submarine personnel suggests the level of importance attached to the quality of care provided to naval personnel in submarine units. Such training, provided by the principal institution supporting Soviet naval medicine, must have a marked impact on those who serve aboard submarines. Realizing that they are supported by the best minds in Soviet military medicine, they have good reason to feel their role a vital part of Soviet naval medicine.

The issue of surgical judgment and the influence of anesthetic policies aboard submarines has been of note. Senior surgical personnel are concerned that surgery be accomplished only when absolutely required, and that anesthesia methods be the safest possible.

Comments concerning the study of the nature and patterns of accidents aboard submarines suggest that at the time of the article, there was no established policy with regard to the monitoring of accidents. Without a method of monitoring incidence and types of accidents, there could be no orderly collection of facts, analysis, and resulting conclusions. This problem is known to other navies.

References

1. Galaktionov LG: Organized Surgeon Aid on Submarines. *VMZ*, no 3, pp 74-76, 1969.
2. Kozulin EA: Joint Attachment of Submarine Physicians and Hospital Corpsmen to the Hospital Surgical Department. *VMZ*, no 6, pp 56-57, 1964.
3. Zhuravlev YuN: The Training of Doctors and Medical Instructors for Submarines. *VMZ*, no 11, 1966.
4. Ibid.
5. Ibid.
6. Smirnov YuP: Training of Submarine Surgical Brigades. *VMZ*, no 4, 1967.
7. Ibid.
8. Smirnov: Submarine Surgical Brigades, no 8.
9. Ibid.
10. Smirnov: Submarine Surgical Brigades, no 4.
11. Ibid.
12. Galaktionov: Surgical Aid.
13. Ibid.
14. Bronshtevn EL, Mzel'skiy VS: Methods of Teaching Personnel How to Set Up an Operating Room in a Submarine. *VMZ*, no 7, 1971.
15. Galaktionov: Surgical Aid.
16. Ibid.
17. Ibid.
18. Ibid.
19. Borizov SA: Prevention and Treatment of Injuries to Submariners. *VMZ*, no 4, pp 60-63, 1976. □



Photos by HM2 J. Parmenter, USN

HM1 Becker (left) and HM1 Marinas of the NEC section discuss transfers with Hospital Corps personnel.

Setting the Record Straight

Enlisted Medical Department Detailers

HMCM Curtis A. Crocker, USN

Mention the word detailer to a corpsman or dental technician and the response you get may run the gamut from smile to salty noun. The much maligned Navy detailer is often perceived as a faceless, inaccessible bureaucrat barricaded in a windowless office of the Navy Annex. With scarcely a thought and with the sweep of a pen, the detailer decides who will become a destroyer's independent duty corpsman and who will stay in CONUS; who will spend the next year on an unaccompanied tour at Adak and who will enjoy a duty station a blink away from Walt Disney World.

Perception and reality, however, can often be miles apart. With a recent visit to the Hospital Corpsman (HM) and Dental Technician (DT) Detailing Section at the Naval Military Personnel Command in Arlington, VA, *U.S. Navy Medicine* attempted, once and for all, to set the record straight.

Wing 7, Section 4412 on the fourth floor of the Navy Annex is the scene of frenzied activity. A chief fires questions at a colleague as he glances at a bunch of papers

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LCDR R.M. Carroll, rating assignment officer, advises HMC Behnke.

clenched in his hand. Like the city desk of a metropolitan newspaper, phones are ringing everywhere. A yeoman answers one, but a glance indicates that all incoming lines are blinking at the same time. A first class corpsman drops an Enlisted Assignment Document (EAD) on his desk as he picks up the phone and identifies himself. The master chief in charge, preoccupied with resolving a problem of one of his detailers, is suddenly called to attend an impromptu conference.

An observer can readily sense the accelerated manner in which time passes in the corner of the Medical Department that handles the assignments of close to 23,000 hospital corpsmen and 4,000 dental technicians worldwide.

A typical day at the HM/DT Detailing Section of the Naval Military Personnel Command (NMPC) begins at 0800, when the detailers arrive and take a few minutes to plan and organize their daily schedules before the phones begin their unrelenting chorus.

"Once the constituents get through with that first call, we are all tied to the phones from then on," says HM1 Gary Becker of the Navy Enlisted Classification (NEC) Section. "Eighty percent of my day is spent on the phone," claims HMC Georgiann Chapman of the "C" School Section, "and often there are no breaks for lunch."

Problem solving seems to be a high priority for the detailers as career counselors and corpsmen from commands all over the world call in with questions. In response, the detailers orchestrate them through the pages of the Bureau of Naval Personnel Manual (BUPERSMAN), the Catalog of Navy Training Course (CANTRAC), and the Enlisted Transfer Manual (TRANSMAN). "This TRANSMAN is our Bible and since we have to adhere to its guidelines, we like to insist that our constituents do also," points out HMC Tony Ciaramitaro. "The rules are there to make enlisted transfers go smoothly. Corpsmen out in the field, in their enthusiasm to get things done, sometimes overlook the rules that govern Projected Rotation Dates (PRD) and Enlisted Active Obligated Service (EAOS)," he continued.

HMCM Charles F. Zahn, the master chief in charge, came to this job from NRMC Naples, Italy, where he served as the personnel officer. That role coupled with his experience as a Medical Administrative Technician and an intense desire to serve the HM community, made him an obvious candidate for his present position. Both he and HMC Jerry Behnke, the E6-7 sea detailer, offered the ingredients that are essential for detailer duty. "An individual must be a volunteer. Once here, they have to be highly visible by maintaining contact with corpsmen in the field," Behnke pointed out. Many requests reach NMPC 407C with incorrect social security numbers. This number is the primary vehicle of identification for military personnel and is important to the detailers in effecting transfers. "All career counselors should know this. They should all be graduates of Career Counselor School. It just makes our job so much easier when we deal with people who are informed. I also encourage all career counselors to visit us," HMCM Zahn said. This, he feels, acquaints the counselors with the detailing process and allows them to learn firsthand how to deal effectively with the detailers and facilitate the transfer process.

A prevailing misconception in the field is that the detailers create billets. Not true. The three Manning Control Authorities—Commander Naval Military Personnel Command (COMNAVMILPERSCOMM), Commander in Chief Atlantic Fleet (CINCLANTFLT), and Commander in Chief Pacific Fleet (CINCPACFLT) determine the manpower required to do the job best. These requirements are funneled to the Enlisted Personnel Management Center (EPMAC) in New Orleans, LA. This organization compiles requisitions for manpower that come to NMPC where the assignments are made. "We operate on the Navy Manning Plan (NMP) which is based on the principle of fair share distribution," continued HMCM Zahn. "There are certain commands which are priority manned at 100 percent and everyone else is manned at a fair share distribution of remaining assets. What complicates the process is the fact that 75 percent of the hospital corpsmen sea duty billets are with the Marines where pres-

ently, females cannot be assigned. If more corpsmen were aware of this when they call to discuss sea duty transfers," said Chief Behnke, "it would make our job much easier."

DTCM Ira W. Briggs, a 24-year Navy veteran, is the senior DT Detailer and came to this job from the Naval Examining Center, Pensacola, FL. He's an enthusiastic man, who obviously enjoys what he does. By his own description, DTCM Briggs' prime objective is "matching up the billets to the individual's duty preference consistent with the needs of the Navy. If the billet of choice is not available, then we have to consider the needs of the Navy first." DTCM Briggs and DT1 Gary Pennoyer, who recently reported for duty, are responsible for 3,400 enlisted dental technicians.

The other detailers, although generally content with their jobs, have some major concerns. HMC George Harmon, who details E1-4 Shore Duty, pointed out that "The link between the detailers and the career counselors is not as sound as it should be." He explained the need for career counselors to re-examine each case before forwarding it to NMPC. Another problem lies with the individual corpsman. A few constituents contact their Congressmen before they contact their detailer. Chief Harmon went on, "Often, we can resolve the problem at our level without higher intervention."

HM1 Gary Guy is the E1-5 Sea Duty Detailer. He finds his job extremely demanding but oftentimes rewarding. "We work at such an accelerated pace, it requires tremendous energy just to stay on top of everything. I really enjoy working with spouse duty requests and get satisfaction from putting a family at the same command without any stumbling blocks."

The NEC Detailers serve a community of 9,500 technicians. HM1 Gary Becker, one of the NEC Detailers, sometimes encounters delays created by improper submission of requests by field activities. "Exchange of Duty (SWAP) and No-Cost Transfer Requests should be sent directly to us and not via EPMAC. That adds three weeks delay because of the endorsement process." The other NEC Detailer, HM1 Digno Marinas, recommended that career counselors research request packages thoroughly before submission. Often, they lack proper social security numbers and all require support documents. Frequently, the individual does not even meet the standards for the action being requested. "If an individual does not meet the criteria, and a request for waiver is not desired, the parent command should disapprove the request. We spend a lot of time disapproving requests that should be stopped at a lower level. The key to proper submission is research," he insisted.

HMC Chapman and her assistant, HM2 Michael Sheridan, make assignments to all "C" Schools. They encounter problems most of which can be handled by career counselors. Chief Chapman emphasized that if the CANTRAC was used regularly, many erroneous requests would be eliminated. She also advises school applicants to rely more on their career counselors.

The Administrative Section, supervised by YN3 P.R. Snider, is staffed by YN3 E.L. Sneed, SN E.Y. Jenkins, and YNSN G.A. Riley.

HMC Chapman (center), YN3 Sneed (left), and YN3 Snider talk over a recently released message.

A telephone with all incoming lines flashing is routine.

These support personnel are the first points of contact with corpsmen and dental technicians. They handle incoming calls, type messages and correspondence, and perform other necessary accessory functions. "This job is tedious at times but can be very challenging just trying to keep pace with these busy detailers," said YN3 Snider. "It's a pleasure working with people and it quickly develops responsibility and maturity," added Sneed.

After a short time in this dynamic environment, one gains a healthy respect for detailers' competence and dedication. What is more obvious is the fact that they work under one overbearing handicap—the corpsmen and dental technicians they serve are often misinformed as to how the system works. As a result, delays and confusion that seem built into the system are really not the fault of the detailers at all. Simply put, here's what you can do to help the detailers help you.

• Commands should acquaint themselves with the information in the Enlisted Distribution Verification Reports (EDVRs) regarding PRDs and EAOSs while a thorough verification is being done.

• Prior to requesting a normal shore tour for a member who has less than three years remaining on his/her contract, the career counselor should consult the Enlisted Transfer Manual (TRANSMAN).

• Each member should see that his/her duty preference form is current.

• Do not waste choices on your Duty Preference Form—be realistic. Don't repeat the same location three times. If a billet of the first choice is unavailable, the detailers will do everything possible to give you your second or third choices.

• Remember the Guard III program guarantees the geographic location of choice if a billet is available and the member is eligible for such duty.

• Commands are encouraged to send all career counselors to Career Counselor School and TAD to COMNAVMILPERS.

• Commands should insure sufficient support data is contained in all requests.

• Members should read all requests for accuracy before signing.

• Social security numbers should always be verified for accuracy.

• Use guidelines in the Transfer Manual, BUPERSMAN, and CANTRAC.

• Always contact detailers for assistance with a transfer situation before seeking external intervention.

• Career counselors are encouraged to be present when individual members talk to detailers.

• Swap and No-cost Transfer Requests should go directly to COMNAVMILPERS.

• Career counselors are urged to research and solve problems before seeking detailer assistance.

• Requests that do not meet criteria or are not submitted for waiver consideration should be disapproved at the command level.

• When requesting training, geographic location cannot be guaranteed. You will be assigned a school based on your request and the quota limitations of the school and travel funding restraints.

Processing begins for CONUS assignments four months prior to projected rotation date (PRD) and five months for OUTCONUS. Update your Duty Preference Form on file by forwarding your choices at least 10 months prior to PRD. Remember, all assignments are made as closely as possible to the preferences of the individual member. If there are no billets of preference available, the detailer must assign according to the needs of the Navy. When your PRD becomes imminent, go to your career counselor and plan your assignment. Call your detailer and discuss these plans. They are most anxious to help you enjoy your career in the Medical Department community. □

Auditory and Visually Evoked Responses: Their Use in Navy Medicine

HM2 Marc Fournier, USN

Approximately 100 years ago, Richard Caton first reported both spontaneous brain rhythms and responses evoked by specific stimuli. Brain rhythms fluctuate with respect to time and therefore, can be recorded on an electroencephalogram (EEG) as waving lines representing changing electrical potentials with time.

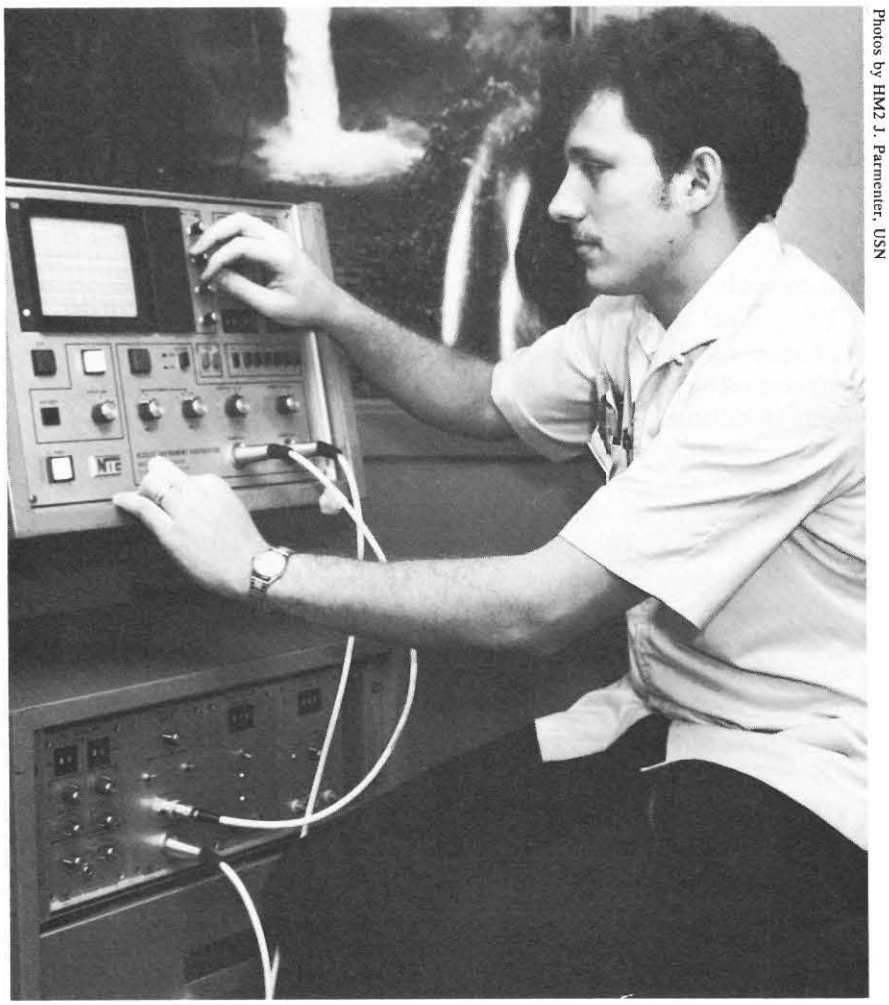
Evoked potentials are specific brain responses to stimuli. The summary of a group of these responses, ranging from 50 to 2,000 or more are averaged together with the use of a computer to display and clarify the "evoked" brain response. The first such computer, a "Computer of Average Transients" (CAT), in use for about 20 years, remains a useful model.

The Visual Evoked Response (VER) is the electrical activity that can be recorded from the occipital cortex as a result of visual stimuli. The Brain Stem Auditory Evoked Response (BAER) is the electrical activity that can be recorded from the vertex by auditory stimuli.

Visual Evoked Response

VERs are performed in the EEG clinic at the National Naval Medical Center, Bethesda, MD, using a Nicolet CA-1000 with a television as stimulator. All studies are performed with the intent of investigating neurological problems.

Patients are referred to the clinic with suspected neurological problems related to vision. A number of electrodes are placed on the patient's head following the international 10-20 system. (All resistances must be below 5 kohms, but above 100 ohms.) This procedure is per-



Photos by HM2 J. Parmenter, USN

The Nicolet CA-1000 is used for recording both the VER and BAER.

When this article was written, HM2 Fournier was an EEG technician in the Department of Neurology, National Naval Medical Center, Bethesda, MD 20014.

The author adjusts earphones for the BAER.

formed in the set-up room.

The patient is then taken to the recording room and seated in a chair one meter away from the television stimulator. The prechiasmic region is investigated first. A patch is placed over one eye. The stimulus is a black on white checkerboard pattern repeated 100 times. The pattern stimulates the optic nerve of each eye and the resulting activity is recorded from the patient's occipital lobe. The procedure is then repeated to check for reproducibility. The opposite eye is then stimulated in the same manner. The results are graphed and measurements taken.

The postchiasmic visual pathway function is then checked by comparing the right and left half of the occipital lobe of the brain. The patient simply watches the stimulus with both eyes open. The rest of the procedure remains the same.

Clinical Applications

The Visual Evoked Responses obtained from pre- and postchiasmic regions provide the clinician with a rather complete assessment of the visual apparatus. It is noninvasive and can be completed in about 45 minutes.

The VER is useful in evaluating lesions of the optic nerve caused by multiple sclerosis, other mass lesions, and toxic amblyopia.

Brain Stem Auditory Evoked Response

BAERs are performed in the EEG clinic using the Nicolet CA-1000 and a click stimulator. This test is an aid in diagnosing brainstem function.

Three electrodes are applied to the patient's head according to the international 10-20 system. (All resistances must be below 5 kohms, but above 100 ohms.) The patient is then seated in a chair, preferably in reclining position, and earphones are affixed.

A hearing threshold is obtained by increasing the decibel level slowly until the patient begins to hear the clicks. This is done for both ears.

The clicks are then presented at a fast rate at different decibel levels. These results are recorded and aid in obtaining objective information of the "V" wave form, that of the midbrain region.

The rest of the test is performed at 60 dB above hearing threshold. The clicks stimulate the acoustic nerve and the response is recorded from the center of the head. Two thousand clicks are completed and repeated for reproducibility. A period of 10 msec is analyzed during which the stimulus is presented at

11/second. This period produces seven wave forms. The wave forms originate from the acoustic nerve all the way through to the cortical regions.

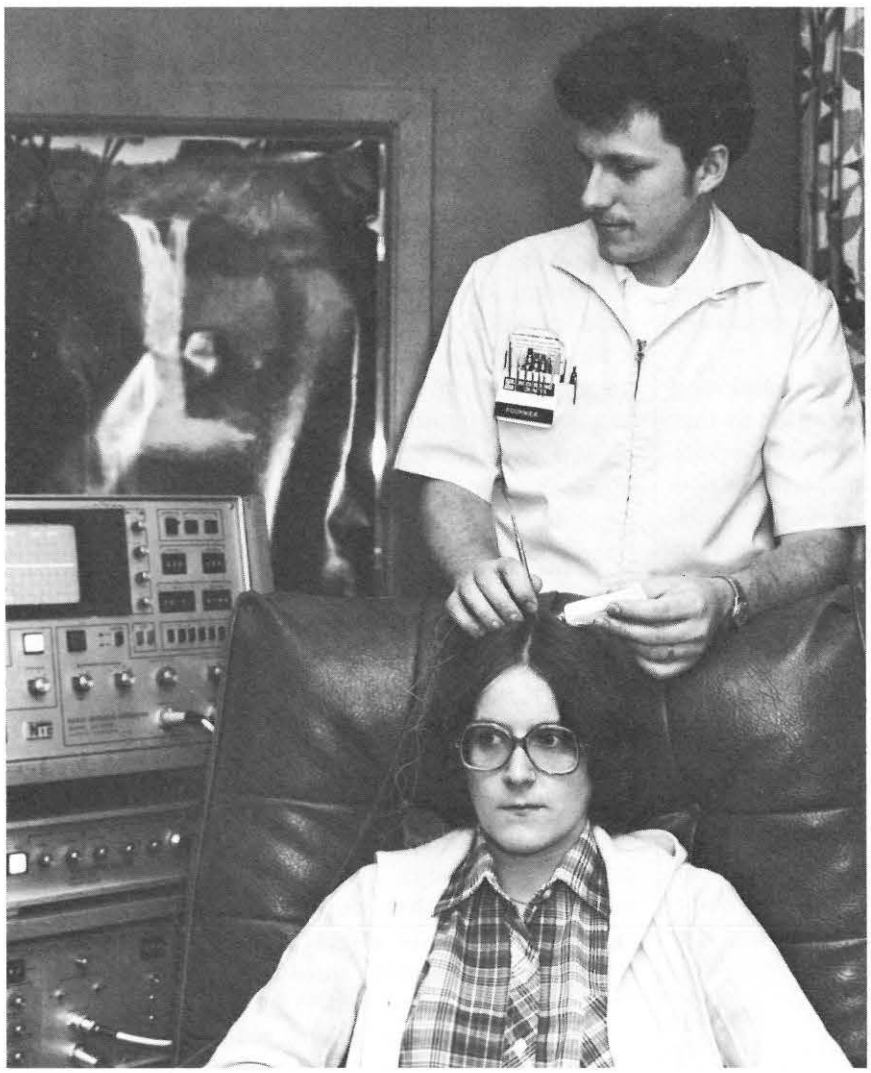
Clinical Applications

The Brain Stem Auditory Evoked Response is an easily obtained study of the auditory pathway that does not rely on the patient for input. In other words, small children or the retarded can be tested and their hearing evaluated objectively, usually in 45 minutes.

The BAER is important in evaluating lesions of the acoustic nerve, such as acoustic neuromas, degenerative diseases, coma, and brain death. Each wave form provides information concerning the level of the brain stem involved.

Visual Evoked Response Case Study

A 27-year-old female was referred to the clinic for a VER study. She had experienced three isolated episodes in the past year and a half of lower extremity weakness with associated paresthesia. She was suspected to have multiple sclerosis.



Application of recording electrodes

The VERs performed were bilaterally abnormal. They demonstrated delayed optic nerve transmission from both eyes. This suggested either virtually symmetrical involvement of the optic nerves, or more likely, a lesion posterior to the optic chiasm.

Brain Stem Auditory Evoked Response Case Study

A 42-year-old female was referred to the clinic with two and a half-year history of multiple sclerosis and a recent exacerbation of symptoms over the past few months. Her BAERs showed normal conduction of the right ear and severe delay of the left ear suggesting a cochlear or VIII nerve lesion (acoustic nerve).

The Visual Evoked Response and the Brain Stem Auditory Evoked Responses are still considered to be experimental. Nevertheless, they offer the physician the means for evaluating brain stem and visual pathway function and are an adjunct to the clinical assessment of a patient's condition. Each test enhances the clinical picture in a functional mode not available by any other method. It should be noted that each lab running these tests must first establish control values such as the range of normals for the local population.

References

1. Sherman J: Visual Evoked Potential (VEP): Basic Concepts and Clinical Applications. *J Am Optometric Assoc* 50(1):19-30, 1979.

2. Brackmann D, Selters WA: Electric Response Audiometry: Clinical Applications. *Otolaryngol Clin North Am* 11(1):7-18, 1978.

3. Low MD: Event-Related Potentials and Their Clinical Applications, in Klass DW, Daly DD (eds): *Current Practice of Clinical Electroencephalography*. New York, Raven Press, pp 441-450, 1979.

4. McCutchen CB, Iraquimadoz VJ: Evoked Potentials, in Tyler R (ed): *Current Neurology*. Boston, Houghton-Mifflin, pp 391-437, 1979. □

Management of Obesity in Retired and Dependent Personnel

LT J. Gary Trantham, MC, USNR

Obesity, overeating, and underactivity represent some of our society's most pervasive, intractable, and preventable health risk factors. (*1*) From 15-40 percent of Americans over age 30 are obese. (*1-4*) Members of our Navy community are particularly prone to this condition. Despite the frequency with which obesity presents itself to the physician, nurse, dietitian, or other health care provider, few acknowledge its multiple causes and wide breadth of treatment. Although most medical practitioners are well aware of the physiological consequences of mild and morbid obesity, several less obvious sequelae that plague the overweight person are not fully appreciated.

What is obesity, what are the risk factors, and why should Navy families be especially susceptible to this frustrating problem? This article describes a model program for healthful weight reduction at the Naval Regional Medical Center Branch Clinic, Naval Amphibious Base, Coronado, CA, and proposes answers to these troubling questions. A comprehensive multimodal system consisting of diet, exercise, education, behavior modification, and stress management with adjunctive hypnosis in a modified group therapy setting was developed in a Navy Family Clinic in order to address the peculiar needs and difficulties of obese, ambulatory, retired, and dependent persons in the San Diego area.

There are a number of reasons why active duty Navy personnel are especially prone to the development of overweight. Many naval personnel serve aboard ship, where movement is confined, and until recently, the Navy neither required a strict physical standard nor provided time and leadership for exercise regimens. Ashore, desk jobs and administrative support work are common. Senior enlisted men in supervisory positions often have special extended mess privileges and are disproportionately high in obesity prevalence. These men serve as role models for younger sailors. The image of the stout, cheerful, ruddy, hard-drinking sailor persists. Aboard ship, food and the mess are among the few comforting preoccupations available. Moreover, ashore and afloat, the food is generally good, plentiful, and high in calories.

Navy families move frequently. Meals eaten while traveling, and the increasingly popular fast foods are notoriously fattening. The disruption of routine makes regular exercise difficult. Frequent leave-taking and reunions of deployed personnel with their families promote numerous festive meals. Getting back to "home cooking" is a major part of homecoming, making a rich repertoire of welcoming recipes an especially critical marital duty for the Navy wife. Frequent "Hail and Farewell" parties, chief's initiations, and "wetting down" gatherings add to the list of special occasions. Furthermore, the transient nature of the population creates frequent encounters with old friends and their wives, calling for a big, family-style dinner, or a night out to eat the traditional steak, baked potato with butter and sour cream, bread, dessert, and drinks. These cultural conditions apply particularly to active duty Navy members, but the habits and lifestyle affect families and subsequent retirement, especially should the member remain sedentary after retirement.

Several unique and painful realities pertain to the wives of active duty and retired Navy men. Left behind on deployments, with 24-hour and three-meal-a-day

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obligation to children, food procurement and preparation becomes a major responsibility and time occupier. Moreover, a young mother or wife, with an absent source of affection, support, and sexual satisfaction, may have few legitimate comforts besides eating. Feeding oneself and the children often substitutes for other types of nourishment. The stress of loneliness, ruptured ties due to relocation and deployment, continual readjustment to the spouse's leaving, and the impact of his return, drive many desperate wives to the refrigerator to satisfy hurt feelings and unmet needs. It has even been suggested that many active duty husbands prefer their wives to be overweight or leave them pregnant, rendering them less attractive to other men, while away at sea.

These reasons and many more seem to make weight control in the Navy retired and dependent ranks exceptionally difficult. Many of these factors are cultural or intrinsic to naval service and not subject to change. It is evident, however, that if we are to combat the increasing health hazard of obesity in our Navy community, we must start with a system of preventive education for affected persons.

Methods

We began our weight control project in September 1978, in a large patio meeting room of the Naval Amphibious Base Family Clinic, Coronado, CA, assisted by Red Cross volunteers and a Nurse Corps officer assigned to patient education. Meetings are held every Thursday at 1100, usually lasting an hour and a half. Average attendance range from 15 to 40 or more persons per week.

Initially, patients were referred by clinic medical officers for weight reduction as an adjunct to treatment of specific medical ills. These included hypertension, coronary artery disease, diabetes mellitus, hyperlipidemias, vascular insufficiency of the lower extremities, and degenerative joint disease of weight-bearing joints and the lumbar spine. Referrals were also made for complaints of chronic fatigue, poor self-esteem, and inability to participate in desired activities. As the word of the program spread, however, many persons joined voluntarily for cosmetic and other reasons.

During the first 18 months of the project, 84 percent of the total participants were women, age 14 to 74. It has remained more difficult to attract and retain overweight/obese men in the group. Participation is voluntary and continual turnover of membership is characteristic of our Navy population as well as weight reduction clinics in general.

The format of the weekly gatherings begins with weigh-in and blood pressure check, where applicable, and usually includes 20 to 30 minutes of didactic presentation, followed by 20 to 30 minutes of group discussion with good humored questions, answers, and self-disclosure. A relaxation exercise/self-hypnosis teaching session, using therapeutic suggestions, has become the regular conclusion of the program. Most, but not all, participate in the relaxation exercise each week. (For an outline of scheduled topics and sequence see Figure 1.) A repeating 20- to 24-week module allows completion of a full cycle, for those who enter in the middle of the term.

Intake procedure, upon joining the program, consists of personal interviews with discussion of weight history and goals, medical history, and specific problem areas in weight management. I prescribe American Diabetic Association balanced food-exchange diets of 1,000, 1,200, or 1,500 calories(*5*) depending on age, sex, and activity level. Attention to requirements for low sodium, limited cholesterol/carbohydrate, potassium supplemented, and other special diets is individualized. Height and weight tables that indicate "desirable body weight," adjusted for age, sex, and body frame size are used to obtain a recommended goal for weight loss for each person. The tables used are a modification of the Metropolitan Life Insurance Company actuarial survey.(*6*) Each member's frame size is assessed as small, medium, or large through simple tape measurement of their nondominant wrist.(*7*) Those found to be greater than 15 percent above their desirable body weight are classified "overweight" and those greater than 30 percent above desirable body weight, are considered obese.(*8*) Clinical judgment and triceps skinfold thickness, using skinfold calipers, assists in the accurate determination of healthful individual weight goals.

Finally, daily time for, and choice of specific exercise regime is recommended. Walking, swimming, cycling, and other milder aerobic(*9*) activities are preferred. Each new member is given a packet of information consisting of:

FIGURE 1. Syllabus of Weight Control Topics

Week	Topic
1	Introduction: Toward a philosophy of long-term weight control, "caring for yourself," and avoiding the hazards of excess weight.
2	Exercise: Calories, aerobics, and muscle tone and flexibility (Navy film: "The Exercist").
3	Diet: Rationale for the A.D.A. food exchange calorie restricted diet, and keeping a diet diary.
4	Fighting Consumer Advertising: Resistance and self-direction in response to media behavior programming in the marketing of food.
5	Your Body's Response to Diet: Salt, fluid, the caloric equation, the plateau phenomenon, and coping with setbacks on the road to weight loss.
6	Behavior Modification/Motivation-I: Intro to rewards, and the formation of new eating and exercise behavior.
7	Your Body's Response to Exercise: Warm-ups, pace, time, and consistency, aerobics versus calories, and problem solving (what to do for sore muscles, joints, shortness of breath, and other symptoms).
8	Behavior Modification/Motivation-II: Resources, obstacles, family relations, and holiday food strategy.
9	Nutrition: "You Are What You Eat": What you should know about fats, carbohydrates, proteins, vitamins, minerals, and food additives to assist you in rational food selection.
10	Behavior Modification/Motivation-III: Strategy for dealing with dinner guests, travel, and special occasions. Intro to self-hypnosis/relaxation or reprogramming your unconscious for success.
11	Behavior Modification/Motivation-IV: Review of eating behavior changes, rewards. Reinforcement of relaxation.
12	Behavior Modification/Motivation-V: Overcoming failure programming, self-image enhancement, and discussion. Reinforcement of relaxation.
13	Compulsive Overeating: Visit from O.A. members, self-disclosure, and discussion. Reinforcement of relaxation.
14	Diet Diary: Discussion of specific food habits and preparation techniques, self-disclosure. Reinforcement of relaxation.
15	Stress Assessment: The Holmes-Rahe Social Readjustment Scale. The effect of stress on eating and behavior change. Reinforcement of relaxation.
16	Stress Symptoms and Stress Management: Alternative coping responses to stress. Reinforcement of relaxation.
17	Stress Management-II: Specific techniques. Reinforcement of relaxation.
18	Alternate Meal Planning and Cooking Techniques: "Protein complementarity," cooking vegetables, "health-food" approaches, and recipe exchange. Reinforcement of relaxation.
19	Special Diets: Low sodium, potassium supplemented, low cholesterol/carbohydrate, hypoglycemic. Reinforcement of relaxation.
20	Self-Assessment: Progress check, goal reaffirmation, long-term maintenance of desirable body weight. Reinforcement of relaxation.
21	Optional Special Topics: Exercise/demonstration film; food additives, saccharin, nitrites, and other; fasting and vegetarianism; diet pills, HCG, and other diet aberrations.

- Calorie restricted A.D.A. diet
- Calorie counter for common foods
- A log of estimated calories per hour used in performance of a variety of common activities
- Summary of eating behaviors for weight control
- Questionnaire of health and weight history, and diet therapy
- Self-questionnaire of past obstacles to weight reduction, consequences of excess weight, and potential remedial actions available
- Sample "contract" to assist in personal goal-setting

Members are encouraged to lose a maximum average of two pounds per week, optimally one pound through diet and one pound through exercise. They are urged to eat at least three meals a day, and are allowed approved snacks from the exchange list, when hungry. From the beginning, the theme "caring for yourself" is presented. A long range, balanced, healthful, eating, exercise, stress response, behavior change is advocated. We cultivate a warm, positive, nonpunitive, caring, and informal atmosphere. No one is chastized for weight gain or failure to lose weight, though personal consultations are scheduled on request. Plaudits and encouragement are offered readily for each pound lost and physical activity pursued.

Results

A total of 268 people visited the program at least once during the course of 80 weeks, or four cycles, 46 men (16 percent) and 222 women (84 percent). Of these, 91 returned four or more times. Forty-three attended 10 or more meetings, averaging 14 pounds weight lost. Twenty-four were present for 15 or more sessions, and averaged 16 pounds lost. Of these, we have followup of 40 weeks for 18 clients, whose continued weight loss average 14 pounds, with a range of a gain of three pounds to a loss of 57 pounds. Retention in the program was strongly correlated with greater weight reduction and successful weight maintenance (Figures 2 and 3).

Discussion

These results are comparable with those realized by Weight Watchers and T.O.P.S., two relatively well known national bariatrics organizations. Whether or not long-term weight loss is maintained remains to be seen. It is extremely difficult to achieve the global lifestyle changes with regard to eating, exercise, and stress response behavior which is necessary for significant long-term weight reduction in an ambulatory setting. Residential obesity treatment programs have the best success rate, by far. Nevertheless, these inpatient treatment centers are not cost-effective for the 80 million or more overweight persons in our population. In addition, continuing maintenance of desirable body weight five years after such treatment has not been reliably demonstrated. We do, however, encourage physicians in primary care to develop a treatment modality for healthful, supportive, weight loss in their obese patients.

Some of our massively obese members were particularly resistant to all modalities in our program. "Compulsive overeaters" represent a subgroup of obese patients that are peculiarly refractory to treatment. These patients are often described as psychologically addicted to food as alcoholics are to alcohol, and equally or more difficult to treat successfully. The resemblance between compulsive overeaters and alcoholics seems to be more than a superficial one. Both involve a loss of conscious control over a self-destructive behavior.

FIGURE 2. Average Weight Loss by Number of Sessions Attended

No. of Patients	No. of Sessions	Average Weight Lost
177	4	4.4 lbs
47	4-9	6.6 lbs
19	10-15	14.0 lbs
24	>15	16.0 lbs

FIGURE 3. Weight Lost by Average Number of Sessions Attended

No. of Patients	Lbs. Lost	Average No. of Sessions Attended
19	10-19	15
4	20-29	19
3	30-39	21
1	40-49	20
3	50-59	18

Recently, compulsive overeaters have been treated with the greatest success to date by principles used primarily for alcohol treatment programs. Since our clinic strategy has failed satisfactorily to alter the eating behaviors of these unfortunate people, we regularly refer them, when identified, to local Overeaters Anonymous (O.A.) meetings. O.A. is an unstructured, nonprofit, anonymous, home group-based organization patterned after Alcoholics Anonymous, whose success rate exceeds that of other methods for this specific cause of obesity. (*10*)

The risk factors associated with excessive weight are indeed significant management problems. These are reviewed elsewhere in detail. (*11*) Our patient population's specific diagnoses (listed under Methods) highlight the most common ambulatory disease entities seen in overweight persons. Certain diagnoses, such as Diabetes Mellitus and severe heart disease, were underrepresented among our clientele. These groups are usually well cared for in formal medical treatment settings, such as diabetic training classes and cardiac clinics at NRMC San Diego.

Two less obvious risk factors of excessive corpulence have also become apparent in the course of our project. Obese persons often receive unsympathetic or substandard medical care. (*12*) They fear their doctor's inevitable rebuke when they complain of weight-related medical problems. The resulting poor physician-patient relationship leads to poor compliance, delay in seeking care, and lack of followup. Many physicians have a fatalistic or simplistic view of the obese patient's weight problem. They may be less aggressive in their therapy, or convey a flippant or repudiating sense of futility. Physicians may be discouraged with the difficulty of examining, much less successfully treating, the obese patient's chronic back pain, abdominal symptoms, or lower extremity vascular, or muscle and joint disease.

Social and psychological maladjustment are extremely common among markedly overweight persons. The morbidly obese individual often becomes a social recluse, with limited interests and physical activities. Guilt, depression, and bizarre body image are not infrequent. (*13*) Restricted activity, paucity of emotional and physical outlets, and lack of supportive personal contact and psychological nourishment, produce a vicious circle, often leading to more eating, weight gain, and disability.

It is clear that the obese patient presents a major therapeutic challenge to our health care system. The medical model approach to weight reduction has not efficiently met the needs of a large segment of our population at risk for leading causes of morbidity and mortality. We have found no single technique successful for all persons. Therefore, it is our contention that a comprehensive, multimodal system as described in this article may address a significant number of ambulatory overweight Navy retired and dependent persons. We would encourage development of similar proposals in other locations. In addition, enhancement of alternative support systems, such as Navy Wives, *WIFELINE, CREDO,* and the Chapel, Navigators, and Officers Christian Fellowship programs can assist personal weight control for Navy spouses. We also recommend better, more available child care, and stationing members near to family, whenever possible. Provision of time and leadership in physical exercise and sporting activities for dependents and active duty personnel will strengthen a community-wide preventive weight control effort. Dietary habits are learned in the home. (*14*) Therefore, whatever impact our education may have upon the spouses of active duty personnel will be compounded in the next generation of children and retirees.

A formalized syllabus of course materials is presently in the process of preparation. Requests for these packets will be honored, when available.

References

1. Select Committee on Nutrition and Human Needs, United States Senate, 95th Congress, 1st Session, *Dietary Goals for the United States*, ed 2, December 1977, p 7.

2. Mayer J: Obesity, in Goodhart RS, Shills ME (eds): *Modern Nutrition in Health and Disease, Dietotherapy,* ed 5. Philadelphia, Lea and Febiger, 1973, p 629.

3. Mayer J: *Overweight, Causes, Cost, and Control.* London, Prentice-Hall, 1968, p 43.

4. National Dairy Council, *Weight Control Source Book,* ed 3. National Dairy Council, Chicago, 1969, pp 4-6.

5. American Diabetic Association. *Exchange Lists for Meal Planning.* Indianapolis, Eli Lilly & Co, 1977.

6. Overweight: Its Prevention and Significance. A series of articles reprinted from *Stat Bull Metropol Life Ins Co,* New York, 1960.

7. Soloman N: *Doctor Soloman's Easy, No Risk Diet.* New York, GP Putnam's Sons, 1976, pp 45-46.

8. Mayer J: *Overweight, Causes, Cost, and Control.* London, Prentice-Hall, 1968, p 32.

9. Cooper KH: *The Aerobics Way.* New York, Bantam Books, 1977.

10. Linder PG: Overeaters Anonymous, As Seen by a Doctor. *Obesity Bariatric Med* 3:16, 1974.

11. Mann GV: The Influence of Obesity on Health. *N Eng J Med* 291:178, 1974.

12. Ashwell MA: A Survey of Patient's Views on Doctors Treatment of Obesity. *Practitioner* 211:653, 1973.

13. Wurtman JJ: Characteristics of the Overeater. *Med Times* 107: 34, 1979.

14. National Dairy Council, *Source Book on Food Practices, With Emphasis on Children and Adolescents,* ed 2. National Dairy Council, Chicago, 1970, pp 9-10. □

NOTES & ANNOUNCEMENTS

KIDGELL MEMORIAL FUND

A nursing scholarship fund has been established in memory of LT Patrick F. Kidgell, NC, USN, who was killed in a helicopter crash during a rescue mission in Washington state (see *U.S. Navy Medicine,* October 1980, p 28). Donations should be sent to: The Patrick Kidgell Memorial Fund, c/o Mrs. Karen Kidgell, 117 W. Main, Lovell, WY 82431.

IN MEMORIAM

CAPT *Lloyd W. Miller,* MSC, USN (Ret.), who was special assistant to the Surgeon General from 1958-1970, died 9 Nov 1980 at NNMC Bethesda, MD. He was 69 years old.

Born in Ohio, CAPT Miller enlisted in the Navy in 1930 and was commissioned in the Medical Service Corps during World War II. His 43-year naval career included duty assignments in the North Atlantic; Newport, RI; Honolulu, HI; Naval School of Hospital Administration, Bethesda, MD; and the Bureau of Medicine and Surgery, Washington, DC.

CAPT Miller was Administrative Officer at Naval Hospital, Orlando, FL, from 1970 until his retirement in 1973.

CDR *James C. Bond,* MSC, USN, who was stationed in the Washington, DC, area for 14 years, died 3 Nov 1980 at the Naval Hospital in Oakland, CA.

Born in Hamlin, TX, CDR Bond graduated from Lewis & Clark College, Portland, OR, and enlisted in the Naval Reserve in 1961. He was commissioned in the Medical Service Corps the same year.

CDR Bond was a medical research chemist at the Naval Hospital, Chelsea, MA, and then became Head of the Toxicology Branch at the Naval Medical School, Bethesda, MD, from 1966-1968. He received a doctorate in pharmacology from Georgetown University, Washington, DC, in 1971 and then had duty as a research pharmacologist at the Naval Medical Research Institute, Bethesda, MD, from 1971-1974. CDR Bond was Program Coordinator for Fleet Health Care Systems at the Naval Medical Research and Development Command, Bethesda, from 1974-1978 and an Assistant Professor and Administrative Assistant in the Surgery Department at the Uniformed Services University of the Health Sciences, Bethesda, from 1978-1980.

CDR Bond was Commanding Officer of the Naval Bioscience Laboratory, Oakland, CA, from April 1980 to the time of his death.

MSC NOMINEES FOR ACHA

The following Medical Service Corps officers should have appeared in *U.S. Navy Medicine,* October 1980, p 29, which listed the nominees who were accepted into the American College of Hospital Administrators. Congratulations to these new ACHA affiliates.

LT O.V. Rogers, MSC, USNR
LTJG L.H. Chewning, MSC, USNR
LTJG K.A. Gintzig, MSC, USNR

PHOTOS

As always, *U.S. Navy Medicine* is on the lookout for good black-and-white photos. If you are contemplating the submission of an article in the near future, please consider shooting a few rolls of film too.

REPLACEMENT FACILITY AT NNMC DEDICATED

Dedication ceremonies for the Navy's newest hospital were held 21 Nov 1980 at Bethesda, MD. The newly constructed National Naval Medical Center is a "replacement facility" for the present 500-bed hospital in use since 1942. President Franklin D. Roosevelt personally sketched the hospital's original design on a piece of White House letterhead in 1937.*

The beneficiary community served by NNMC includes active duty uniformed services personnel from the Washington, DC, metropolitan area, their immediate families, retired military personnel and their families, and other authorized beneficiaries.

NNMC's primary function is to provide the highest quality primary, secondary, tertiary medical care possible to its patients and to serve as a worldwide referral hospital. It is also one of the Navy's four major training hospitals and is a major research facility affiliated with the Uniformed Services University of the Health Sciences (USUHS), and numerous other medical educational institutions.

*See "The President's Hospital," *U.S. Navy Medicine,* April 1980.

Construction of the new facility began in July 1976 and it will open its doors this month, offering patients a unique facility that will combine efficiency, ease of access, and functionally aesthetic architecture.

The two-story outpatient clinic is built around the shopping mall concept with large waiting areas and easy to find clinics. The main entrance to the outpatient building is by way of an enclosed walkway connecting this building with the new south parking structure. The handicapped and elderly will find this covered walkway convenient since it will provide direct access to the outpatient clinics.

After entering the clinic via walkway, patients will find large signs and directory maps indicating present location and clinic layout.

The Pharmacy is the first department readily accessible from the walkway, thus allowing access by those individuals requiring prescriptions without a clinic visit.

The basement level of the clinic houses Radiology, Radiation Therapy, Occupational and Physical Therapy, Central Supply, and other support facilities.

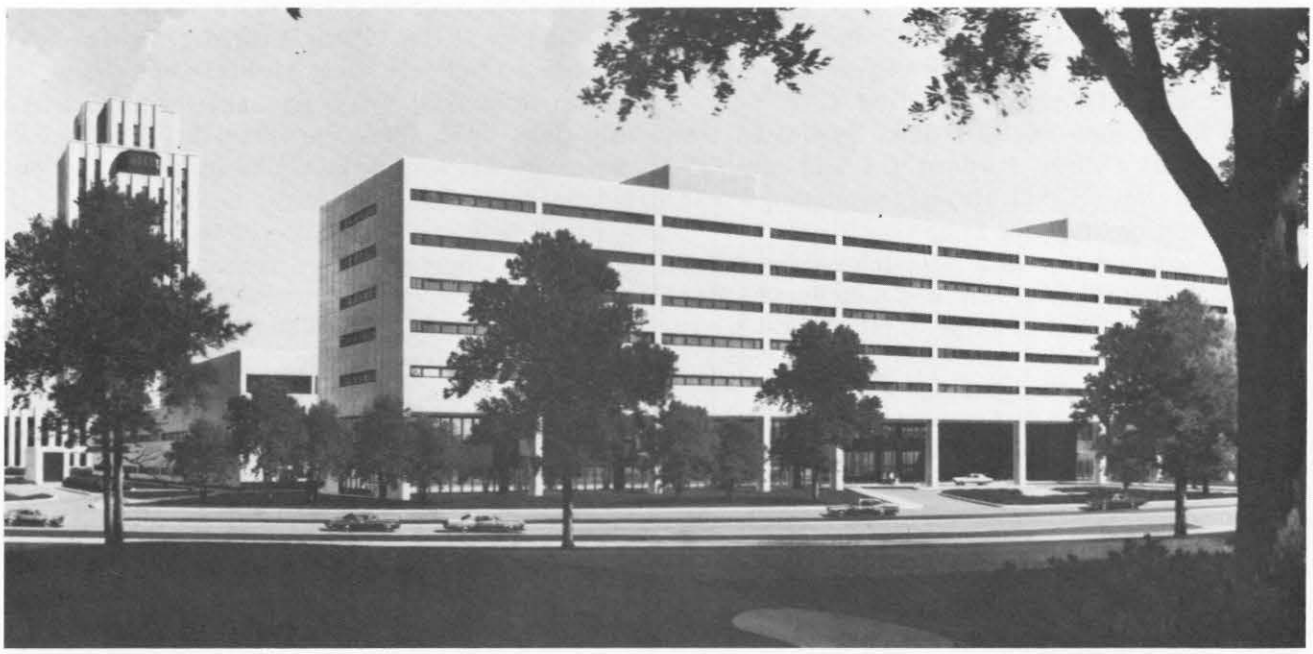
The clinics on the outpatient building's first floor include Orthopedics, Chest/Infectious Disease, Pediatrics, Laboratory, Allergy/Rheumatology/Immunizations, Gastroenterology, Internal Medicine, Medical Acute Care, Emergency Room, and Radiology. The outpatient record department is also centrally located immediately adjacent to the building's entrance.

This new facility represents a modern state of the art structure. Most of the critical care areas will be equipped with the computer-based Physiological Monitoring System (PMS) which monitors the patients' vital body functions. These areas will also be equipped with a computerized Patient Data Management System (PMS) which collects patient data, computes vital patient values, and displays both current and historical patient information.

A pneumatic tube system located throughout the entire new facility, connects all nursing stations with the pharmacy.

A monorail automated supply cart system will deliver meals and supplies to all inpatient areas through corridors reserved for this purpose.

The Centralized Building Automated System (CBAS) will monitor the building's security, manage energy usage, and detect fires. This system regulates air conditioning and lights, redirects heating and cooling, monitors doors and hallways for motion, and maintains vault security through sonic detectors.



NNMC Bethesda, MD

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ROSTER—1 NOVEMBER 1980

Following is a list of staff medical and dental officers of major fleets and forces; district medical and dental officers; commanding officers; executive officers; directors of administrative services; directors of clinical services; chief nurses of Medical Department activities; division surgeons and dental officers of Marine divisions, Marine aircraft wings, and Marine brigades.

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	AO CAPT C. WIMBERLY, MSC, USN
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CINCLANT/CINCLANTFLT/CINCWESTLANT	RADM J. B. HOLMES, DC, USN
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CNATRA (NAS CORPUS CHRISTI, TX)	CAPT R. R. PALUMBO, MC, USN (ADDU)
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